

SPECIFYING STRUCTURAL POSTS AND BUILDING POLES

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Product Introduction

Posts and Building Poles are defined as round, half-round and quarter-round posts (<4.5 metres or 15 feet) and poles (>4.5 metres). They are used in applications such as highway construction and lighting, agricultural uses, playground equipment, road salt and fertilizer storage, fencing, and general building use. Properly treated Structural Posts and Building Poles are the preferred choice for these applications. They are strong, cost effective, attractive, easy to install, maintenance free and very durable. The information in this guide will identify the requirements of Structural Posts and Building Poles as specified in the CSA O80 Standard. The processing and treatment of Structural Posts and Building Poles shall be done in accordance with CSA 080.2-08, section 9.2 and 9.4.

Allowable Wood Species and Related Use Categories

Structural Posts and Building Poles are subjected to severe service conditions and are a critically important material component. This means that product failure in-service could have a range of effects from service interruptions to loss of life. Fence Posts and Building Posts less 3.3 metres have a Use Category rating of 4.1. All other applications have a use Category rating of 4.2. Non-building Poles and Building Poles 4.75 to 9.1 metres in length shall meet the physical properties standards of CSA CAN3-056, Round Timber Piles. All other Structural Posts and Building Poles shall meet the physical requirements specified in CSA O80.1, section 9.3. Posts and Poles sawn on four sides is cover in WPC-04-2012.

Structural Post and Building Poles - Preservative usage by Species								
UC4.1 – Ground Contact or Freshwater, Normal Exposure – uncritical components								
Species Group	Preservative Use							
	ACQ-	CA-B	ACZA	CCA	CR	CR-PS	CuN	PCP-
	C/D							A/C
Jack Pine	No	Yes	Yes	Yes	Yes	Yes	No	Yes
Lodgepole and Ponderosa	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pine								
Red Pine	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Southern Pine	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Western Hemlock†	No	No	Yes	Yes	Yes	Yes	No	Yes
Engelmann, Red and	No	No	Yes	Yes	Yes	Yes	No	Yes
Western White Spruce								
Coastal Douglas Fir†	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Western Larch†	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Poplar	No	No	Yes	Yes	Yes	Yes	No	Yes
Red Alder	No	No	Yes	Yes	Yes	Yes	No	Yes



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Structural Post and Building Poles - Preservative usage by Species								
UC4.2 – Ground Contact or Freshwater, High Decay Potential – critical components								
Species Group	Preservative Use							
	ACQ-	CA-B	ACZA	CCA	CR	CR-PS	CuN	PCP-
	C/D							A/C
Jack Pine	No	Yes	Yes	Yes	Yes	Yes	No	Yes
Lodgepole and Ponderosa	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pine								
Red Pine	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Southern Pine	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Western Hemlock†	No	No	Yes	Yes	Yes	Yes	No	Yes
Engelmann, Red and	No	No	Yes	Yes	Yes	Yes	No	Yes
Western White Spruce								
Coastal Douglas Fir†	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Western Larch†	No	No	Yes	Yes	Yes	Yes	No	Yes
Poplar	No	No	Yes	Yes	No	No	No	No
Red Alder	No	No	Yes	Yes	No	No	No	No

[†] Round posts only.

Allowable Treatment Preservatives

All allowable species may be treated with one of the following preservatives. Wood preservatives require registration under the Federal Pest Control Act. Only preservatives that are currently registered are listed.

Preservative	Preservative Abbreviation	Relevant Standards
Creosote	CR	AWPA P1 and P13
Creosote-Petroleum Solution	CR-PS	AWPA P3
Pentachlorophenol, Solvent A	PCP-A	CSA O80.4, AWPA P8 & P9
Pentachlorophenol, Solvent C	PCP-C	CSA O80.4, AWPA P8 & P9
Ammoniacal Copper Zinc	ACZA	AWPA P5
Arsenate*		
Copper Naphthenate	CuN	CSAO80.4, AWPA P8 & 9
Alkaline Copper Quat, Type C	ACQ-C	AWPA P5
Alkaline Copper Quat, Type D	ACQ-D	AWPA P5
Copper Azole	CA-B	AWPA P5
Chromate Copper Arsenate,	CCA	AWPA P5
Type C		